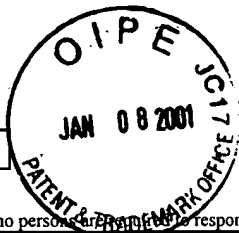


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				Application Number	09/677,962
				Filing Date	October 3, 2000
				First Named Inventor	Mark B. Lyles et al.
				Group Art Unit	Unassigned 3731
				Examiner Name	Unassigned WOO
Sheet	1	of	6	Attorney Docket Number	068351.0110

U.S. PATENT DOCUMENTS						
Examiner Initials*	Cite No. ¹	U.S. Patent Document		Name of Patentee or Applicant of Cited Document	Date of Publication of Cited Document MM-DD-YYYY	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		Number	Kind Code ² (if known)			
[Signature]	AA	4,014,426		Gonzalez et al.	08/01/78	
	AB	4,148,962		Leiser et al.	04/10/79	
	AC	5,024,671		Tu et al.	06/91	
	AD	5,201,728		Giampapa	04/93	
	AE	5,629,186		Yasukawa et al.	05/07	

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		Office ³	Number ⁴	Kind Code ⁵ (if known)				
[Signature]	AF	WO	9,110,470	PCT		07/91		

Examiner Signature	[Signature: Julian M. Woo]	Dated Considered	2-22-04
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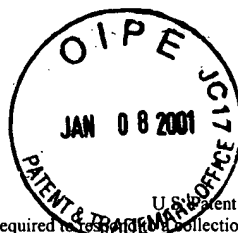
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				Group Art Unit	Unassigned 3731
				Examiner Name	Unassigned WOO
				Attorney Docket Number	068351.0110
Sheet	2	of	6		

OTHER PRIOR ART – NON PATENT LITERATURE DOCUMENTS			
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	AG	PEPPAS et al., "New Challenges in Biomaterials," Science, Vol. 263, March 25, 1994, pp. 1715-1720	
	AH	LANGER et al., "Tissue Engineering," Science, Vol. 260, May 14, 1993, pp. 920-926	
	AI	MOONEY et al., "Tissue Engineering Using Cells and Synthetic Polymers," Transportation Reviews, Vol. 7, No. 3 (July), 1993, pp. 153-162	
	AJ	MOONEY et al., "Stabilized polyglycolic acid fibre-based tubes for tissue engineering," Biomaterials 1996, Vol. 17, No. 2, pp. 115-124	
	AK	DIONNE et al., "Transport characterization of membranes for immunoisolation," Biomaterials 1996, Vol. 17, No. 3, pp. 257-266	
	AL	LYMAN et al., "Characterization of the formation of interfacially photopolymerized thin hydrogels in contact with arterial tissue," Biomaterials 1996, Vol. 17, No. 3, pp. 359-364	
	AM	GREISLER et al., "Biointeractive polymers and tissue engineered blood vessels," Biomaterials 1996, Vol. 17, No. 3, pp. 329-336	
	AN	HEALY et al., "Kinetics of bone cell organization and mineralization on materials with patterned surface chemistry," Biomaterials 1996, Vol. 17, No. 2, pp. 195-208	
	AO	DEE et al., "Conditions which promote mineralization at the bone-implant interface: a model in vitro study," Biomaterials 1996, Vol. 17, No. 2, pp. 209-215	
	AP	BOYAN et al., "Role of material surfaces in regulating bone and cartilage cell response," Biomaterials 1996, Vol. 17, No. 2, pp. 137-146	
	AQ	MISCH et al., "Bone-Grafting Materials in Implant Dentistry," Implant Dentistry, Vol. 2, No. 3, pp. 158-167	

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		Considered	

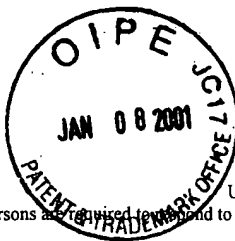
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				Group Art Unit	Unassigned 3731
				Examiner Name	Unassigned W00
Sheet	3	of	6	Attorney Docket Number	068351.0110

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<i>[Signature]</i>	AS	SPECTOR, M., "Anorganic Bovine Bone and Ceramic Analogs of Bone Mineral as Implants to Facilitate Bone Regeneration," Clinics in Plastic Surgery, Vol. 21, No. 3, July 1994, pp. 437-444	
	AT	HOLLINGER et al., "Bioactive Factors and Biosynthetic Materials in Bone Grafting," Clinics in Plastic Surgery, Vol. 21, No. 3, July 1994, pp. 415-418	
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	AV	ZAMBONIN et al., "Biomaterials in orthopaedic surgery: effects of different hydroxyapatites and demineralized bone matrix on proliferation rate and bone matrix synthesis by human osteoblasts," Biomaterials 1995, Vol. 16, No. 5, pp. 397-402	
	AW	VACANTI et al., "Bone and Cartilage Reconstruction with Tissue Engineering Approaches," Otolaryngologic Clinics of North America, Vol. 27, No. 1, February 1994, pp. 263-276	
	AX	KURASHINA et al., "Osteogenesis in muscle composite graft of hydroxyapatite and autogenous calvarial periosteum: a preliminary report," Biomaterials 1995, Vol. 16, No. 2, pp. 119-123	
	AY	DUCHEYNE et al., "Effect of Bioactive Glass Templates on Osteoblast Proliferation and In Vitro Synthesis of Bone-Like Tissue," Journal of Cellular Biochemistry 56, 1994, pp. 162-167	
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	BA	HERRERA et al., "Implantation of sepiolite-collagen complexes in surgically created rat calvaria defects," Biomaterials, Vol. 16, No. 8, 1995, pp. 625-631	
	BB	MARDEN et al., "Recombinant human bone morphogenetic protein-2 is superior to demineralized bone matrix in repairing craniotomy defects in rats," Journal of Biomedical Materials Research, Vol. 28, 1994, pp. 1127-1138	
		MANSON, Paul N., "Facial Bone Healing and Bone Grafts," Clinics in Plastic Surgery, Vol. 21, No. 3, July 1994, pp. 331-348	

Examiner Signature	<i>Julian H. Woo</i>	Dated Considered	2-22-04
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				Filing Date	October 3, 2000
				First Named Inventor	Mark B. Lyles, et al.
				Group Art Unit	Unassigned 3791
				Examiner Name	Unassigned Woo
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JMM	BC	HABAL et al., "Bone Grafts and Bone Induction Substitutes," Clinics in Plastic Surgery, Vol. 21, No. 4, October 1994, pp. 525-542	
	BD	STEVENSON et al., "The Effect of Osteogenin (A Bone Morphogenetic Protein) on Formation of Bone in Orthopedic Segmental Defects in Rats," The Journal of Bone and Joint Surgery, Vol. 76-A, No. 11, November 1994, pp. 1676-1687	
	BE	WOLFF et al., "Histomorphometric Analysis of the Repair of a Segmental Diaphyseal Defect with Ceramic and Titanium Fibermetal Implants: Effects of Bone Marrow," Journal of Orthopaedic Research, Vol. 12, No. 3, 1994, pp. 439-446	
	BF	REDDI, A.H., "Symbiosis of Biotechnology and Biomaterials: Applications in Tissue Engineering of Bone and Cartilage," Journal of Cellular Biochemistry, 56, 1994, pp. 192-195	
	BG	EL-GHANNAM et al., "Bioactive material template for in vitro synthesis of bone," Journal of Biomedical Materials Research, Vol. 29, 1995, pp. 359-370	
	BH	FUJISATO et al., "Effect of basic fibroblast growth factor on cartilage regeneration in chondrocyte-seeded collagen sponge scaffold," Biomaterials, Vol. 17, No. 2, 1996, pp. 155-162	
	BI	DEGROOT et al., "Use of porous polyurethanes for meniscal reconstruction and meniscal prostheses," Biomaterials, Vol. 17, No. 2, 1996, pp. 163-173	
	BJ	SHORTKROFF et al., "Healing of chondral and osteochondral defects in a canine model: the role of cultured chondrocytes in regeneration of articular cartilage," Biomaterials, Vol. 17, No. 2, 1996, pp. 147-154	
	BK	CASSER-BETTE et al., "Bone Formation by Osteoblast-Like Cells in a Three-Dimensional Cell Culture," Calcif Tissue Int, 46, 1990, pp. 46-56	
	BL	HUNTER et al., "Attachment and proliferation of osteoblasts and fibroblasts on biomaterials for orthopaedic use," Biomaterials, Vol. 16, No. 4, 1995, pp. 287-295	
	BM	BEGLEY, et al., "The Culture of Human Osteoblasts upon Bone Graft Substitutes," Bone, 14, 1993, pp. 661-666	

Examiner Signature	<i>Julian M. Woo</i>	Dated Considered	2-22-03
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				Application Number	09/677,962
				Filing Date	October 3, 2000
				First Named Inventor	Mark B. Lyles et al.
				Group Art Unit	Unassigned 3731
				Examiner Name	Unassigned WOO
Sheet	5	of	6	Attorney Docket Number	068351.0110

OTHER PRIOR ART -- NON PATENT LITERATURE DOCUMENTS			
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J. W. WOO	BN	DIXIT, V., "Development of a Bioartificial Liver Using Isolated Hepatocytes," Artificial Organs, Vol. 18, No. 5, 1994, pp. 371-384	
	BO	YARMUSH et al., "Hepatic Tissue Engineering," Annals New York Academy of Sciences, pp. 238-252	
	BP	WU et al., "Entrapment of Hepatocyte Spheroids in a Hollow Fiber Bioreactor as a Potential Bioartificial Liver," Tissue Engineering, Vol. 1, No. 1, 1995, pp. 29-40	
	BQ	MOGHE et al., "Culture matrix configuration and composition in the maintenance of hepatocyte polarity and function," Biomaterials, Vol. 17, No. 3, 1996, pp. 373-385	
	BR	DAVIS et al., "Toward development of an implantable tissue engineered liver," Biomaterials, Vol. 17, No. 3, 1996, pp. 365-372	
	BS	MOONEY et al., "Biodegradable sponges for hepatocyte transplantation," Journal of Biomedical Materials Research, Vol. 29, 1995, pp. 959-965	
	BT	GUTSCHE et al., "Engineering of a sugar-derivatized porous network for hepatocyte culture," Biomaterials, Vol. 17, No. 3, 1996, pp. 387-393	
	BU	CIMA et al., "Hepatocyte Culture on Biodegradable Polymeric Substrates," Biotechnology and Bioengineering, Vol. 38, 1991, pp. 145-158	
	BV	NYBERG, et al., "Evolution of the Bioartificial Liver: The Need for Randomized Clinical Trials," The American Journal of Surgery, Vol. 166, November 1993, pp. 512-521	
	BW	UYAMA et al., "Delivery of Whole Liver-Equivalent Hepatocyte Mass Using Polymer Devices and Hepatotrophic Stimulation," Transplantation, Vol. 55, No. 4, April 1993, pp. 932-935	
	BX	GUPTA et al., "Hepatocyte Transplantation: Development of New Systems for Liver Repopulation and Gene Therapy," Seminars in Liver Disease, Vol. 12, No. 3, 1992, pp. 321-331	

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JMM	BY	NYBERG et al., "Extracorporeal Application of a Gel-Entrapment, Bioartificial Liver: Demonstration of Drug Metabolism and Other Biochemical Functions," Vol. 2, No. 6, 1993, pp. 441-452	
	BZ	GERLACH, J.C., "Use of Hepatocyte Cultures for Liver Support Bioreactors," Hepatic Encephalopathy, Hyperammonemia and Ammonia Toxicity, pp. 165-171	
	CA	NYBERG et al., "Hepatocyte culture systems for artificial liver support: Implications for critical care medicine (bioartificial liver support)," Critical Care Medicine, Vol. 20, No. 8, August 1992, pp. 1157-1168	
	CB	LACY, Paul, "Treating Diabetes with Transplanted Cells," Scientific American, July 1995, pp. 50-58	

Examiner Signature	<i>Julian W. Woo</i>	Dated Considered	2-22-04
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